

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
TYLER DIVISION**

LONE STAR TECHNOLOGICAL  
INNOVATIONS, LLC,

Plaintiff,

v.

ASUSTEK COMPUTER, INC.

Defendant.

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Civil Action No. 6:19-cv-00059-RWS

**LEAD CASE**

**PLAINTIFF LONE STAR TECHNOLOGICAL INNOVATION, LLC'S  
OPENING CLAIM CONSTRUCTION BRIEF**

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<b><u>Exhibit No.</u></b>	<b><u>Exhibit Name</u></b>
1	U.S. Patent 6,724,435
2	Court's Proposed Constructions in <i>Lone Star Technological Innovations, LLC v. Acer, Inc., et al.</i> , Case No. 6:15-cv-973-JRG-JDL <i>Acer</i> preliminary claim construction
3	Declaration of Robert Stevenson, Ph.D.
4	Deposition Transcript of Robert Stevenson, Ph.D.
5	Adobe Sys. Inc., <i>Matching RGB Color from Monitor to Printer</i> , Technical Note #5122, at 5-6, Feb. 14, 1992

## I. INTRODUCTION

Plaintiff Lone Star Technological Innovations, LLC (“Plaintiff” or “Lone Star”) alleges that Defendants AsusTek Computer Inc. and Barco N.V. (“Defendants”) infringe one or more claims of U.S. Patent No. 6,724,435 (the “’435 patent” or the “Patent-in-Suit”). A true and correct copy of the ’435 patent is attached as **Exhibit 1**.

## BACKGROUND OF THE PATENT

The ’435 patent describes a system and method for selecting and adjusting an individual color in a real time digital video image (*i.e.*, changing the hue or saturation of a selected individual color) without affecting other colors. Prior to the patented invention, one was only able to adjust the hue or saturation of *all* colors in a digital video image—not just an individual color. The Patent-in-Suit solves this problem with a claimed system and method of independent color control of a real time digital video image that allows a change in hue or saturation of an individual color without affecting other individual colors. Please see Plaintiff’s Technical Tutorial for additional information.

## PRIOR CLAIM CONSTRUCTION HEARING

Previously, on November 10, 2016 this Court conducted a *Markman* hearing concerning claim construction for terms in the ’435 Patent (as well as another asserted patent, U.S. Patent 6,122,012, not asserted in this matter) in the matter styled *Lone Star Technological Innovations, LLC v. Acer, Inc. et al.*, No. 6:15-cv-00973-JRG-JDL (E.D. Tex. 2015). At that hearing, the Honorable Judge Love issued preliminary constructions. A true and correct copy of these preliminary constructions is attached as **Exhibit 2**.

## II. LEGAL PRINCIPLES OF CLAIM CONSTRUCTION

Claim construction is the first step in any infringement or validity analysis. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370 (1996). A



district court should construe the claims in light of their explicit language as informed by their preambles, as well as the patent's specification, figures, and prosecution history. *See Id.* at 980; *see also Graham v. John Deere Co.*, 383 U.S. 1, 33 (1966).

The specification is the “best source for understanding a technical term,” to be supplemented, “as needed, by the prosecution history.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (quoting *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1478 (Fed. Cir. 1998)). The prosecution history represents key evidence of how the examiner and the inventor construed the patent. *See Lemelson v. Gen. Mills, Inc.*, 968 F.2d 1202, 1206 (Fed. Cir. 1992). Claims should generally be interpreted in a manner consistent with other claims, as well as with the prosecution history. *See, e.g., Bell Howell Document Mgmt. Prods. Co. v. Altek Sys.*, 132 F.3d 701 (Fed. Cir. 1998).

It is improper to confine a claim to a particular embodiment; the claim language itself is paramount. *See, e.g., Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1370 (Fed. Cir. 2008); *accord Phillips*, 415 F.3d at 1325 (favoring plain and ordinary meaning of the claim language over importing limitation from the preferred embodiment). Extrinsic evidence may also be relevant to claim construction. *See Phillips*, 415 F.3d at 1317. Such evidence consists of all evidence extrinsic to the patent and its prosecution history, including “expert and inventor testimony, dictionaries, and learned treatises.” *Id.* (internal quotation omitted). While authorizing examination of extrinsic evidence, the Federal Circuit has warned that while it “can shed useful light on the relevant art,” it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Id.*

The definiteness requirement of 35 U.S.C. § 112 “require[s] that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910

(2014). A party seeking to invalidate a patent must overcome a presumption that the patent is valid. *See* 35 U.S.C. § 282; *Microsoft Corp. v. i4i Ltd. Partn'p*, 564 U.S. 91, 97 (2011); *United States Gypsum Co. v. National Gypsum Co.*, 74 F.3d 1209, 1212 (Fed.Cir.1996). This presumption places the burden on the challenging party to prove the patent's invalidity by clear and convincing evidence. *Microsoft*, 564 U.S. at 97; *United States Gypsum Co.*, 74 F.3d at 1212. Close questions of indefiniteness “are properly resolved in favor of the patentee.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1348 (Fed.Cir.2005); *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1380 (Fed.Cir.2001). It is defendant’s burden to prove indefiniteness and a defendant must “show by clear and convincing evidence that a skilled artisan could not discern the boundaries of the claim based on the claim language, the specification, and the prosecution history, as well as her knowledge of the relevant art area.” *Haemonetics Corp. v. Baxter Healthcare Corp.*, 607 F.3d 776, 783 (Fed.Cir.2010).

### III. LEVEL OF ORDINARY SKILL IN THE ART

Lone Star submits that a person having ordinary skill in the art would have had at least a bachelor’s degree in electrical engineering, computer science, applied mathematics, or an equivalent field, in addition to at least two years of industry experience in digital video system design.

### IV. PLAINTIFF’S PROPOSED CONSTRUCTION OF CLAIM TERMS

#### A. “INDIVIDUAL COLOR”

Term to be Construed	Lone Star’s Proposed Construction	Defendants’ Proposed Construction
“individual color”  '435 Patent, Claims 1, 2, 10, 11, 13-18, 26, 27, and 29-32	A linear combination of colors or color components such as red, green, blue, yellow, cyan and magenta.	a linear combination of colors or color components.

The parties agree that “individual color” means “a linear combination of colors or color components,” but dispute whether “such as red, green, blue, yellow, cyan and magenta” should be included in the construction. The ’435 Patent specification defines “individual color” as a “linear combination of color or color components, such as red, green, blue yellow cyan and magenta.” ’435 Patent, 1:19-22. The patentee has set forth a definition of the claim term with an intent to define it. See *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). Additionally, this Court previously agreed with Lone Star and construed “individual color” according to its proposed construction.

Further, and of particular note, is the ’435 Patent specification describing the use of red as an individual color of an input image pixel selected to be changed:

<sup>25</sup> In case 1, where the independent red hue control delta value,  $H_r$ , or, the independent red saturation delta value,  $S_r$ , of Step (b), is not equal to zero, there is identifying each input image pixel having red,  $R$ , as the individual color whose hue or saturation was selected to be independently  
<sup>30</sup> changed, according to the following logical conditions:  
 $R_{in} > [Arg + G_{in}]$  and  $R_{in} > [Arb + B_{in}]$ , where  $Arg$  and  $Arb$  are positive constants.

’435 Patent, 10:25-32. The specification discloses a formula which is used to identify image pixels containing “the individual color...whose hue or saturation was selected to be independently changed.” ’435 Patent, 10:18-20. This particular reference identifies “red,  $R$ , as the individual color whose hue or saturation was selected to be independently changed....” ’435 Patent, 10:28-30. This confirms the colors and color components of the claimed invention include such colors “as red, green, blue, yellow, cyan and magenta.” Indeed, Defendants’ expert concedes red, green, blue, yellow, cyan, and magenta are “an example [of] a linear combination of colors or color components” and “not inconsistent” with Defendants’ proposed definition of this term. Ex. 4, 55:21-56:27.

The Court should adopt Lone Star’s construction of “individual color.” Not only does the ‘435 specification provides its own lexicographical definition, but also this Court has already preliminarily agreed to it. Moreover, the inclusion of “such as red, green, blue, yellow, cyan and magenta” will aid the jury, by providing an example of an individual color or color component that is consistent with the specification. Defendants present no evidence as to why the addition of these specific examples is improper or incorrect especially in light of the specification and previous preliminary construction.

**B. “CHARACTERIZING”**

<b>Term to be Construed</b>	<b>Lone Star’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
“characterizing” ’435 Patent, Claim 1	Not indefinite.  Plain and ordinary meaning  Or, in the alternative:  Specifying	This term is indefinite under 35 U.S.C. § 112(2).

Defendants assert that “characterizing” as contained in ’435 Patent, claim 1 is indefinite. It is not and in its preliminary constructions, this Court agreed the term is not indefinite. **Exhibit 2 at 4.** Contrary to Defendants’ argument, the ‘435 Patent provides sufficient guidance for a person having ordinary skill in the art to understand the meaning of the term. A claim is indefinite only if the claim, “read in light of the specification delineating the patent, and the prosecution history, fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus*, 572 U.S. at 901.

“Characterizing” is found in the first step of Claim 1 of the ’435 Patent:

1. A method for independently controlling hue or saturation of individual colors in a real time digital video image, comprising the steps of:
  - (a) receiving and **characterizing** the real time digital video input image featuring input image pixels;

The specification explains:

Different formats are used for *characterizing* colors or color components in real time digital video images. In one format, real time digital video images feature colors or color components *characterized* by linear combinations of the basic colors red, green, and blue, in RGB color space. In another format, real time digital video images feature colors or color components *characterized* by linear combinations of the basic colors yellow, cyan, and magenta, in YCM color space. In still another format, real time digital video images feature colors or color components *characterized* by linear combinations of the chromatic parts, Cr and Cb, also known in the art as U and V, respectively, in YCrCb or YUV luminance/chromatic color space, respectively.

'435 Patent, 1:42-54 (emphasis added). Thus, this claim term does not warrant construction because it is readily understood by one of skill in the art and Defendants cannot show any lack of "reasonable certainty." *Nautilus*, 572 U.S. at 910; see *Sonix Tech. Co., Ltd. v. Publ'ns Intl., Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017) ("Indefiniteness must be proven by clear and convincing evidence."). Additionally, even if it does warrant construction, a person of ordinary skill in the art, reviewing the claims and the intrinsic record, would understand that "characterizing" as contained in claim 1 of the '435 Patent, means specifying (*i.e.* specifying the format (*e.g.* RGB, YCrCb, *etc.*) of the real time digital video input image). This understanding is consistent with the claims and as described in the specification.

Defendants' expert opined that "the '435 Patent provides no guidance as to what is meant by 'characterizing' as a step performed in a method." Stevenson Dec., ¶ 25. Their expert is wrong. Several portions of the specification that describe how a real time digital video input image is characterized. See *e.g.* Col. 1, Lns. 42 – 50. Despite considerable specification support to the

contrary, Stevenson declares that: “With regards to characterizing a real time digital input image, the specification states only:

In Step (a) of the method of the present invention, there is receiving and characterizing a real time digital video input image. Preferably, there is receiving a real time digital video input image, I, featuring colors or color components characterized by linear combinations of the basic colors red, green, and blue, in RGB color space, whereby the real time digital video input image, I, features basic colors red, green, and blue, and, complementary colors yellow, cyan, and magenta, in the RGB color space featuring a color based three-dimensional coordinate system.’435 Patent at 6:40-50.” **Exhibit 3**, Stevenson Dec. at 9.

This opinion, however, haphazardly overlooks numerous specification examples that describe characterizing a real time digital input image, which feature color or color components, for example:

the following description particularly refers to real time digital video images featuring colors or color components characterized by linear combinations of the basic colors red, green, and, blue, in RGB color space, which are used for defining and evaluating the complementary colors or color components yellow, cyan, and magenta, in the RGB color space, in order to illustrate implementation of the present invention. The method of the present invention is applicable to other formats of real time digital video images featuring colors or color components characterized by individual colors or color components in other types of color space, such as real time digital video images featuring colors or color as components characterized by linear combinations of the basic colors yellow, cyan, and magenta, in YCM color space, or, *real time digital video images featuring color components characterized by chromatic parts, Cr and Cb, or, U and V, in YCrCb or YUV luminance/chromatic color space*, by applying appropriate linear transformations between the RGB color space and the YCM, or, the YCrCb or YUV luminance/chromatic color space. ’435 Patent, 6:2-25.

The specification also introduces an embodiment instructing a person having ordinary skill in the art that the digital video image can be “characterized” by RGB color space.

Six cases of Step (c) are described, corresponding to the six colors or color components, red, green, blue, yellow, cyan, and, magenta, associated with the input image pixel Values,  $R_{in}$ ,  $G_{in}$ ,  $B_{in}$ , respectively, of input image pixels,  $I[ij: R_{in}, G_{in}, B_{in}]$ , of the real time digital video input image, I, characterized by RGB color space. (emphasis added). ’435 Patent, 9:51-57.

Indeed, Defendants’ expert’s view that “characterization” is indefinite lacks merit in light of the ’435 specifications guidance. At his deposition, Defendant’s expert conceded that “in the

claim, it was referring to the characterization of a digital image or video,” undermining the position that there is any lack of “reasonable certainty.” Ex. 4, 32:25-33:5.

Further, one of skill in the art would also find this use consistent with extrinsic references to “characterization.” For example, “characterizing” is described as the following:

## 2 Device-Independent Color and Color Documents

The practice of *characterizing* color devices, and using those characterizations for matching color between particular devices, is not new. What is new with the advent of PostScript Level 2 is the ability it provides to divorce the *production* of color documents from their *reproduction* with matching color.

It is not necessary to specify colors in a selected *standard color space* to make them device-independent (although Level 2 does support various standard color spaces, as well as the RGB spaces discussed here). Instead, the color space where the colors in question happen to be specified can be

described in terms of a standard color space, or *reference color space*. The color *specifications* together with the description of their color space are *device-independent*. Device-independent color has the potential to be displayed or printed anywhere as originally intended, subject to the limitations of the devices involved.

**Exhibit 5**, Adobe Sys. Inc., *Matching RGB Color from Monitor to Printer*, Technical Note #5122, at 5-6, Feb. 14, 1992. This extrinsic reference supports the fact that a person of skill in the art would understand “characterizing” to mean specifying.

Thus, the claim term “characterizing” is not indefinite, because one of skill in the art would be informed (as explained above) “about the scope of the invention with reasonable certainty,” in light of the patent’s claims and the specification. *Nautilus*, 572 U.S. at 910.

### C. “WITHOUT AFFECTING THE HUE OR THE SATURATION OF ANY OTHER INDIVIDUAL COLOR”

Term to be Construed	Lone Star’s Proposed Construction	Defendants’ Proposed Construction
“without affecting the hue or the saturation of any other individual color”  ’435 Patent, Claims 1 and 17	without affecting the hue or the saturation of any other individual color, that was not selected to be changed	Ordinary meaning (incorporating the construction of “individual color”).

Term to be Construed	Lone Star's Proposed Construction	Defendants' Proposed Construction

In addition to the parties' dispute as to the proper construction of "individual color", Plaintiff proposes that the phrase "without affecting the hue or the saturation of any other individual color" (contained in claims 1 and 7 of the '435 Patent) be construed to mean "without affecting the hue or the saturation of any other individual color, that was not selected to be changed." This Court previously agreed with that construction. **Exhibit 2 at 4.**

The thrust of the patented invention of the '435 Patent is to overcome the problem in the art of changing the hue or saturation of a color without changing the hue or saturation of all colors. '435 Patent, 1:57-59. In order to effectuate this, the '435 Patent teaches a method and system of being able to select an individual color, "whereby the hue or the saturation of the *selected individual color* in the real time digital video input image has been changed without *affecting the hue or the saturation of any other individual color* in the real time digital video input image." '435 Patent, 3:41-49 (emphasis added). Indeed, the patent states that "a main aspect of novelty of the present invention is that of enabling one to independently control, that is, to independently change or adjust, by increasing or decreasing, hue or saturation of each individual color in a real time digital video image, without affecting the hue or saturation of any other color in the same real time digital video image." *Id.*, 8:25-31. Claim 1 of the '435 Patent recites first "*selecting* to independently change the hue or saturation of *an individual color*" (*i.e.* selecting an individual color to change) and then concludes with "whereby the hue or the saturation of said *selected individual color* in the real time digital video input image has been changed without affecting the hue or the saturation of *any other individual color* in the real time digital video input image."



Given that the claim requires “selecting” an “individual color”, then “any other individual color” must mean an individual color that is capable of being selected, but not selected.

Similarly, claim 17 of the '435 also states: “whereby the hue or the saturation of said *selected individual color* in the real time digital video input image has been changed without affecting the hue or the saturation of *any other individual color* in the real time digital video input image.” (emphasis added). Again, given that “individual color” is required to be capable of being selected, then “other individual color” must also mean that which is capable of being selected but was not selected. “[T]he person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which [it] appears, but in the context of the entire patent, including the specification.” *Phillips*, 415 F.3d at 1313.

**D. “ARBITRARY INTERVAL OF INTEGERS”**

<b>Term to be Construed</b>	<b>Lone Star’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
“arbitrary interval of integers” '435 Patent, Claims 5 and 21	a range between two whole numbers	Ordinary meaning.

The term “arbitrary interval of integers” as it occurs in claims 5 and 21 is best understood in the context of its sister claim, dependent claim 6 of the '435 Patent. Claim 6 recites: “The method of claim 1, whereby in step (b), numerical range of said independent color hue control delta value is an interval between -1 and +1.” '435 Patent, claim 6. Claim 6 is directed to the ability to control hue on a scale ranging from -100% to +100% (e.g. a “slider” control to change the hue of a color, as found on a digital display or television, and that has a range from -100% to 100%). A person of skill in the art would understand from the differences between claim 6 and claims 5 and 21 that, in contrast to claim 6 which is directed to a percentage scale ranging from -100% to +100%, claims 5 and 21 are directed to a whole number scale. One of skill would

therefore understand that “arbitrary interval of integers” means a range of any two whole numbers (not fractions or percentages as claim 6 teaches) to control the hue of a color. A person having ordinary skill in the art would understand to mean that the interval could be implemented as [-10 to 10], or [0 to 100], as long as the interval is a range of whole numbers.

**E. “VIEWER”**

<b>Term to be Construed</b>	<b>Lone Star’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
“viewer” ,435 Patent, Claims 17	Graphic user interface (GUI) menu display, configured on a man-machine interaction (MMI) mechanism.	Indefinite – illustrates that method steps are performed by a human as discussed below.

Defendants seek a construction of “viewer” that is indefinite because it “illustrates that method steps are performed by a human.” This is incorrect. A “viewer” is not indefinite and should not be construed as a “human.” Moreover, the Court rejected the prior defendants’ similar proposed construction of the term as “a person.” **Exhibit 2 at 5**. If construction is necessary, then “viewer” is a “graphical user interface (GUI) menu display, configured on a man-machine interaction (MMI) mechanism.”

In multiple instances, the specification discusses a “viewer” disjunctively from a “user” and makes clear that a “viewer” and a human “user” are not one and the same. *See, e.g.*, ,435 Patent, 26:23 (“A user or viewer of a real time digital video image...”). Although the specification makes a passing reference to a preferred embodiment as “the user or viewer pushing or turning, the independent color hue control mechanism,” a distinction between a “user” and “viewer” is made clear by other descriptions in the specification and to one of ordinary skill in the art.

First, the specification attributes the acts of pushing or turning a control mechanism to the “user,” when describing a human interaction with a physical button or dial: “For example, *a user*

*may desire to adjust the hue or saturation of only one color, such as red, green, blue, yellow, magenta, or, cyan, of a real time digital video image displayed on a television screen, by pushing or turning a color hue or color saturation or intensity control button or dial on a control device associated with the television screen.” ’435 Patent, 1:63-2:2 (emphasis added). Second and more importantly, in all other instances where a user or viewer is described as interacting with the color control mechanism, it is clear from the context that the specification has grouped multiple possible interactions by a user or a viewer together—including both (1) a human interaction with a physical button or dial or (2) a viewer (GUI display) interaction with a man-machine interaction mechanism—and “pushing and turning” [by a human user] is clearly intended to describe but only one example of a possible interaction among many, including interactions by a viewer with a GUI: “A user or viewer of a real time digital video image display device, such as a television screen, selects to independently change hue, H, or, selects to independently change saturation, S, of an individual color, clr ... **by activating, such as by pushing or turning, an independent color hue control mechanism, or, an independent color saturation control mechanism, such as a button, dial, or graphic user interface (GUI) menu display, configured on a man-machine interaction (MMI) mechanism** featured as part of a master control device...” ’435 Patent, 26:21-37. In other words, the limitation described by the specification is an operable way of “activating a... color[] control mechanism,” and examples of that action include “such as” pushing or turning a button or dial by a user or activating a GUI menu display by a viewer.*

The specific embodiment of a user pushing or turning a button or dial should not be read into the claims. “Particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed.

Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. “[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004). Instead, Lone Star’s construction should be adopted which is rooted in the plain language of the claim. Claim 17(c) states: “a viewer of said real time digital video image display device operating said master control device for selecting to independently change the hue or the saturation of an individual color in the real time digital video input image.” In this context, the ordinary artisan would understand that the “viewer” is not a human, but a part of the system that controls the master control device for a user to operate, such as a Graphic user interface (GUI) menu display, configured on a man-machine interaction (MMI) mechanism. The specification confirms this understanding that the viewer is a part of the system for the user or human to control:

As an exemplary system for implementing the just described method of the present invention is described herein. A user or viewer of a real time digital video image display device, such as a television screen, selects to independently change hue, H, or, selects to independently change saturation, S, of an individual color, clr, such as red, green, blue, yellow, cyan, or, magenta, in the real time digital video input image, I, displayed on the real time video image display device, by activating, such as by pushing or turning, an independent color hue control mechanism, or, an independent color saturation control mechanism, such as a button, dial, or **graphic user interface (GUI) menu display, configured on a man-machine interaction (MMI) mechanism featured as part of a master control device, such as a built-in master color controller device, or, a wireless remote master color controller device, in operative electronic communication with the real time video image display device.**

Additionally, and according to claim 17, the viewer is *operating* the master control device, which coincides to the specification disclosure.

Specific ranges, and values, of hue and saturation of the individual colors or color components featured in the real time digital video input image are typically pre-determined or set according to design and manufacture of hardware and/or software of a particular real time digital video display device and associated equipment and peripherals, Such as a built-

in color controller, or, a wireless remote color controller, used for operating the particular real time digital video display device. '435 Patent, 9:15-24.

Defendants' expert bases his opinion on only one portion of the specification and provides no other evidence to support his opinion. Stevenson Dec. at 40-41. The sheer paucity of Defendants' evidence does not rise to the level of clear and convincing evidence.

As discussed in more detail below, there are no method steps within system claim 17. The claim discusses a system that uses functional language to describe its capabilities. *See UltimatePointer, L.L.C. v. Nintendo Co.*, 816 F.3d 816, 828 (Fed. Cir. 2016) (“[T]he claims do not reflect an attempt to claim both an apparatus and a method, but instead claim an apparatus with particular capabilities.”); *HTC Corp. v. IPCom GmbH*, 667 F.3d 1270, 1273, 1277–78 (Fed. Cir. 2012) (distinguishing claims that “merely establish those functions as the underlying network environment in which the mobile station operates”). Further, system or apparatus claims that use functional language are “not necessarily indefinite.” *Microprocessor Enhancement Corp. v. Texas Instruments Inc.*, 520 F.3d 1367, 1375 (Fed. Cir. 2008); *See also Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1382-84 (Fed. Cir. 2015). “If the functional language of the claim merely describes the structure and capabilities of the claimed apparatus, then the claim is sufficiently definite under 35 U.S.C. § 112 ¶ 2.” *SFA Systems LLC v. 1-800-Flowers.com Inc.*, 940 F.Supp.2d 433, 454 (E.D. Tex. 2013). It is clear from the context of the claim, read as a whole, that the subject claim limitations describe capabilities of the system and do not include actions of a user within its scope. The claim is directed to a system, not the users themselves. While users may provide input to the system, that is not what is claimed. What is claimed is a system with a non-human viewer component capable of the claimed functions. Such a system is definite. *See Nautilus*, 783 F.3d at 1384 (finding as definite an apparatus claim that included functional language describing how a claimed heart rate monitor is held by a user, calculates the user's heart

rate, and displays the user's heart rate). Defendant's do not propose a construction of viewer, only that the term is indefinite and "illustrates that method steps are performed by a human."

Here, the functional language describes the capability of the system.

**F. "AS APPLIED TO CLAIM 17: THE COMBINATION OF METHOD STEPS AND SYSTEM ELEMENTS IN A SINGLE CLAIM: OPERATING SAID MASTER CONTROL DEVICE...; SELECTING AN INDEPENDENT COLOR HUE CONTROL DELTA VALUE OR AN INDEPENDENT COLOR SATURATION CONTROL DELTA VALUE...; IDENTIFYING A PLURALITY OF SAID INPUT IMAGE PIXELS...; DETERMINING CORRESPONDING OUTPUT IMAGE PIXEL VALUES...; DISPLAYING A REAL TIME DIGITAL VIDEO OUTPUT IMAGE..."**

Term to be Construed	Lone Star's Proposed Construction	Defendants' Proposed Construction
The combination or method steps and system elements in a single system claim.	Not indefinite. Claim 17 contains permissible functional limitations that describe the system by reciting its capabilities. <i>MasterMine Software, Inc. v. Microsoft Corp.</i> , 874 F.3d 1307, 1313 (Fed. Cir. 2017).	Indefinite – A claim that "recites both a system and a method for using that system" is invalid as indefinite. <i>IPXL Holdings, L.L.C. v. Amazon.com, Inc.</i> , 430 F.3d 1377, 1384 (Fed.Cir.2005).

Defendants allege claim 17 is indefinite because a single claim that recites two separate statutory classes of invention, (*i.e.* "an apparatus and a method of using that apparatus,") is invalid as indefinite under 35 U.S.C. § 112 ¶ 2. *IPXL*, 430 F.3d at 1384. "This Court and others have found that the holding in *IPXL* is 'very limited.' *Motion Games, LLC v. Nintendo Co.*, No. 6:12-CV-878-JDL, 2015 WL 11170167, at \*3 (E.D. Tex. Jan. 16, 2015), report and recommendation adopted, No. 6:12-CV-878-RWS-JDL, 2015 WL 11170729 (E.D. Tex. Apr. 22, 2015) (citing *Synqor, Inc. v. Artesyn Technologies, Inc.*, No. 2:07-cv-497, 2010 WL 2991037, at \*31 (E.D. Tex. July 26, 2010); *see also Alexsam, Inc. v. Best Buy Stores L.P.*, No. 2:10-cv-93, 2012 WL 4894325, at \*1 (E.D. Tex. Oct. 15, 2012). The problem with mixing apparatus and method steps is that such mixed claims fail to clarify "whether infringement would occur when one creates a system that

allows the user to [perform the step] ... or ... when the user actually [performs the step].” *HTC*, 667 F.3d at 1277. Here, there is no uncertainty about when infringement would occur, as it plainly occurs when a system is created that can perform the claimed functions. Defendants’ will attempt to argue that system claim 17 incorporates several method elements. However, each of the verbs identified by Defendants describe the *functional* capabilities of the system and are tied to specific structures. “A claim term is functional when it recites a feature ‘by what it does rather than by what it is.’ (e.g., as evidenced by its specific structure or specific ingredients).” Manual of Patent Examining Procedure § 2173.05(g) (9th ed. 2014) (citing *In re Swinehart*, 439 F.2d 210, 212, 169 USPQ 226, 229 (CCPA 1971)). *Motion Games*, 2015 WL 11170167, at \*4, report and recommendation adopted, No. 6:12-CV-878-RWS-JDL, 2015 WL 11170729 (E.D. Tex. Apr. 22, 2015). The system discloses specific structures, including a “video image display device” and a “master control device,” described by functional language. The system is claiming the above identified structures, which have the capability to perform certain steps. Claim 17 states:

“whereby said real time digital video image display device in said operative electronic communication with said master control device performs steps including: (i) identifying... (ii) determining...; and (iii) displaying...”.

The system’s structures include a digital video image display device and a master control device with the capability to perform the described functions. The digital video image display device in operative electronic communication with the master control device has the capability of the (i) “identifying...”, (ii) “determining...”, and (iii) “displaying...” functions. These steps do not denote user actions, but defines a system for independently controlling hue or saturation of individual colors in a real time video image. The verbs “identifying”, “determining”, and “displaying” serve to recite components of the digital video image display device and master control device. *See Motion Games*, 2015 WL 11170167 at \*5 (“In fact, these types of claims which

“describe what the apparatuses do, when used in a certain way,” have been specifically identified as types of claims with functional limitations rather than method limitations. *Yodlee, Inc. v. CashEdge, Inc.*, No. 05–01550, 2006 WL 3456610, at \*4–6 (N.D. Cal. Nov. 29, 2006) cited in *Alexsam*, 2012 WL 4894325, at \*1.”). The Court in *Yodlee* rejected the Defendant’s indefiniteness argument because of subsection (b) of an apparatus claim, describing “upon activation of the presented link, downloading an application to the client computer, wherein the downloaded application upon execution on the client computer performs the steps of...”. The court reasoned that “[t] claim describes what happens “upon activation of the presented link.” It does not seek to patent activation of the link; it seeks only to patent a device which performs certain functions if and when the link is activated. Infringement occurs when a device that has the capability of performing the steps described under paragraph (b) is manufactured and sold. Whether a user actually activates the link presented by the infringing device is of absolutely no import. Similarly, the process initiated by activating the link need never take place. If the device presents such a link, and activating such link would initiate the process described under paragraph (b), the device infringes.” *Yodlee*, 2006 WL 3456610, at \*4. Similarly, here, claim 17 describes what the claimed system does when used in a certain way and not the use of the system itself. *See id.*

The Federal Circuit has consistently approved using functional language to describe capabilities of the system. *Mastermine*, 874 F.3d at 1316 (citing as examples of Federal Circuit approval *Microprocessor Enhancement Corp. v. Tex. Instruments Inc.*, 520 F.3d 1367 (Fed. Cir. 2008)). In *Microprocessor*, the Federal Circuit found that a patent claim directed to a computer processor with different stages, including “performing a boolean algebraic evaluation,” “producing an enable-write,” later “enabling” or “disabling,” and, at a different stage, “determining,” was not a mixed apparatus-and-method claim. *Microprocessor*, 520 F.3d at 1367. In *HTC Corp. v. IPCom*



*GmbH & Co., KG*, 667 F.3d 1270 (Fed. Cir. 2012), the court found that a claim directed to a “mobile station for use with a network” that recited “storing,” “holding,” and other functional limitations was not indefinite. Finally, in *UltimatePointer, L.L.C. v. Nintendo Co.*, 816 F.3d 816 (Fed. Cir. 2016), The Federal Circuit rejected the Defendant’s argument that the “generating data” limitation made it unclear whether the claim was directed to a method or apparatus, and held rather that “generating data” merely “reflects the capability of that structure rather than the activities of the user.” Likewise, Claim 17’s active verbs recite capability and do not require a user or human intervention in order to infringe—rather, infringement occurs when the system was created. Here, as in *Mastermine*, “[b]ecause the claims merely use permissible functional language to describe the capabilities of the claimed system, it is clear that infringement occurs when one makes, uses, offers to sell, or sells the claimed system.” *Id.* at 1316. Also, the language in Claim 17 is functional despite the lack of “configured to” or other similar language. See *1-800-Flowers.com*, 940 F. Supp. 2d at 455.

Even if the Court rejects Lone Star’s position on “viewer”, Claim 17 does not claim activities performed by the user, but the claimed system’s capability to received and respond to user selection. See *Freeny v. Fossil Grp., Inc.*, No. 218CV00049JRGRSP, 2019 WL 2078783, at \*24 (E.D. Tex. May 10, 2019). Claim 17 describes the ability of the system to receive input from a user and denotes the system’s response capabilities. Claim 17 is thus distinguishable from the claims in *IPXL* requiring “the user uses the input means”. *IPXL*, 430 F.3d at 1384. Claim 17 is also distinguishable from *In re Katz* requiring “wherein ... callers provide ... data.” *In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1318 (Fed. Cir. 2011).

Additionally, and as discussed in *Mastermine*, the functional language here does not appear in isolation, as in *Rembrandt*, or at the end of the claim, as in *IPXL*, but is specifically tied to

structure, *i.e.* the “master control device” is used “for selecting to independently change the hue or the saturation of an individual color.” ‘435 Patent, Claim 17; *see also Mastermine*, 874 F.3d at 1315-16 (finding no indefiniteness because “[t]hough claim 8 includes active verbs – presents, receives, and generates – these verbs represent permissible functional language used to describe capabilities of the ‘reporting module’”); *Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331 (Fed. Cir. 2011).

Finally, Defendants’ expert does not explain why Claim 17 does not describe the capability of the system. Without addressing arguments beyond the limited *IPXL* holding, this testimony does not satisfy Defendants’ burden to overcome the clear and convincing standard. “[E]xpert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert’s conclusory, unsupported assertions as to a term’s definition are entirely unhelpful to a court. *Perdiem Co, LLC v. IndusTrack LLC*, No. 2:15-CV-727-JRG-RSP, 2016 WL 3633627, at \*3 (E.D. Tex. July 7, 2016).

**G. “INPUT IMAGE PIXEL”**

<b>Term to be Construed</b>	<b>Lone Star’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
“Input image pixel” ’435 Patent, Claims 1, 13, 14, 15, 16, 17, 29, 30, 31, 32.	Plain and ordinary meaning	Image data including an integer row, an integer column, and color component values for each of red, green, and blue.

Lone Star proposes a plain and ordinary meaning construction for this straightforward term. “Input image pixel” is sufficiently clear such that no construction is necessary. Defendants, in contrast, seeks to import a host of improper limitations into the claim that are unsupported by the intrinsic evidence. Here, given the full context, Claim 1 recites:

A method for independently controlling hue or saturation of individual colors in a real time digital video image, comprising the steps of:

(a) receiving and characterizing the real time digital video input image featuring input image pixels;

First, Defendants’ construction seeks to improperly import the limitation of “Image data.” Defendants have no basis for this requirement, which does not appear in the intrinsic record. Neither the claim language at issue, nor any of the language surrounding input image pixel, references the word “Image data.” In fact, this phrase is not used anywhere in the ’435 Patent.

Second, while the specification describes an “input image pixel” according to a row and column with position indices, nothing in the specification confines an “input image pixel” to only “integers” or “integer row” or “integer column.” ’435 Patent, 6:58 – 67. In fact, the patent specification describes an “input image pixel” to also include, for example, real numbers:

Accordingly, for RGB color space,  $I[i,j: R_{in}, G_{in}, B_{in}]$  represents each of a plurality of input image pixels of the real time digital video input image,  $I$ , which can be plotted in an input grid of a real time digital video image display device, whose position coordinates in the input grid are indicated by row  $i$ , and column  $j$ . For the real time digital video input image,  $I$ , of size  $M$  rows by  $N$  columns, position indices  $(i,j)$  are preferably limited to the input image size as follows:  $i: 0,1,2, \dots M-1$ ; and  $j: 0,1,2, \dots N-1$ . In general, indices  $i$  and  $j$  are real or integer.

*Id.* The Court should not read “integer row” or “integer column” into the claims as there is no evidence that patentee intended to limit the claims to this embodiment. This is further evidenced by the statement that “[i]n general, indices  $i$  and  $j$  are real or integer.” *Id.* “[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.” *Medrad*, 358 F.3d at 913.

Additionally, Defendants’ proposed construction seeks to import a selective embodiment into the claim language that improperly limits the invention to the RGB color space. “Particular embodiments and examples appearing in the specification will not generally be read into the

claims.” *See Comark*, 156 F.3d at 1187 (quoting *Constant*, 848 F.2d at 1571 ); *see also Phillips*, 415 F.3d at 1323. “[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.” *Medrad*, 358 F.3d at 913. Indeed, the specification describes several different color spaces, such as YCM or YUV:

The method of the present invention is applicable to other formats of real time digital video images featuring colors or color components characterized by individual colors or color components in other types of color space, such as real time digital Video images featuring colors or color as components characterized by linear combinations of the basic colors yellow, cyan, and magenta, in YCM color Space, or, real time digital Video images featuring color components characterized by chromatic parts, Cr and Cb, or, U and V, in YCrCb or YUV luminance/chromatic color space, by applying appropriate linear transformations between the RGB color space and the YCM, or, the YCrCb or YUV luminance/chromatic color Space. Accordingly, the invention is capable of other embodiments or of being practiced or carried out in various ways. Also, it is to be understood that the phraseology and terminology employed herein are for the purpose of description and should not be regarded as limiting. ’435 Patent, 6:8-26.

Defendants’ addition of the clause “for each of Red, Green, or Blue” limitation would improperly read out these disclosed embodiments. Defendants’ proposed construction seeks to limit the claim language by requiring the “input image pixel” to reside in a specific format. The RGB color space is a specific feature of particular disclosed embodiments that should not be imported into the claims. *See Comark*, 156 F.3d at 1187; *see also Phillips*, 415 F.3d at 1323.

Defendants’ proposed construction adds limitations to “input image pixel” that are inconsistent with the specification and the plain and ordinary meaning should apply. Additionally, Defendants have no intrinsic support for this construction and cannot point to a lexicographic definition or disclaimer in the specification to justify adding these limitations. The Court should reject Defendants’ construction and the term should be given its plain and ordinary meaning.

**H. “FORMING A CORRESPONDING PLURALITY OF OUTPUT IMAGE PIXELS HAVING SAID SELECTED INDIVIDUAL COLOR”**

Term to be Construed	Lone Star's Proposed Construction	Defendants' Proposed Construction
"Forming a corresponding plurality of output image pixels having said selected individual color" '435 Patent, Claims 1 and 17.	No construction necessary	Forming a plurality of output image pixels that each correspond to one of the plurality of input image pixels that have said selected individual color in the real time digital video input image with the hue or the saturation selected to be independently changed, the output image pixels having said selected individual color.

This term does not require construction as a jury would understand the plain language of the limitation. In contrast, Defendants' proposed construction does not provide meaningful guidance to a jury and creates a series of redundancies adding confusion to the definitions. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (claim construction is "to clarify, and when necessary to explain what the patentee covered by the claims," not to introduce unhelpful or confusing language). These redundancies are illustrated by inserting Defendants' proposed construction in the remaining part of the claim:

Claim 1(d) according to its plain and ordinary meaning:

"forming a corresponding plurality of output image pixels having said selected individual color with the hue or the saturation selected to be independently changed"

Claim 1(d) with Defendants' proposed construction:

**[Forming a plurality of output image pixels that each correspond to one of the plurality of input image pixels that have said selected individual color in the real time digital video input image with the hue or the saturation selected to be independently changed, the output image pixels having said selected individual color]** "with the hue or the saturation selected to be independently changed"

The result of incorporating Defendants' proposed construction is an incongruent claim element that will not provide meaningful guidance to the Court or a jury.

Further, this term is used consistently in the specification with its plain and ordinary meaning. For example, the specification of '435 Patent states: "using the corresponding Selected independent color hue control delta value, Hclr, or the corresponding selected independent color saturation control delta value, Sclr, respectively, *for forming a corresponding plurality of output image pixels*, O[s,t: R<sub>out</sub>, G<sub>out</sub>, B<sub>out</sub>], having the individual color whose hue or saturation was selected to be independently changed." '435 Patent, 12:2-8. The term requires no construction. Defendants' proposal is nothing more than an attempt to insert additional, unsupported, limitations into the claims and should not be adopted.

**I. "BY PERFORMING ARITHMETIC AND LOGICAL OPERATIONS"**

<b>Term to be Construed</b>	<b>Lone Star's Proposed Construction</b>	<b>Defendants' Proposed Construction</b>
"By performing arithmetic and logical operations" '435 Patent, Claims 1 and 17.	Not indefinite. Plain and ordinary meaning.	Indefinite as to whether this clause modifies "identifying," "changed," or both terms,

Defendants assert that this term is indefinite, however there is nothing indefinite about the language of the claim. A claim is indefinite only if the claim, "read in light of the specification delineating the patent, and the prosecution history, fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus*, 572 U.S. at 901. Defendants ignore the specification and misconstrue the syntax of the claim language. Indeed, the Stevenson declaration omits instructive language of the claim and disregarding its full context. **Exhibit 3**, Stevenson Dec. at 33.

Read in its entirety, Claim 1 teaches: "identifying a plurality of said input image pixels having said selected individual color in the real time digital video input image with the hue or the saturation selected to be independently changed, by performing arithmetic and logical operations using input image pixel values of each said input image pixel of the real time digital video input

image.” In light of the entire claim phrase, “performing arithmetic and logical operations” modifies “identifying.” In other words, the input image pixels are identified by performing arithmetic and logical operations. The specification supports this proper interpretation of the claim language. For example, the specification provides examples of “cases” where the hue or saturation of an individual color was selected and using arithmetic and logical operations to identify the input image pixels:

In case 2, where the independent green hue control delta value,  $H_g$ , or, the independent green saturation delta value,  $S_g$ , of Step (b), is not equal to zero, there is identifying each input image pixel having green,  $G$ , as the individual color whose hue or saturation was selected to be independently changed, according to the following logical conditions:  
 $G_{in} > [Agr + R_{in}]$  and  $G_{in} > [Agb + B_{in}]$ , where  $Agr$  and  $Agb$  are positive constants.

’435 Patent, 10:35-40. Specifically, the  $G_{in}$  is an input image pixel and identified using greater than ( $>$ ) logical and addition ( $+$ ) arithmetic operations. Further, the specification provides the following:

More specifically, *there is identifying a plurality of the input image pixels,  $I[i,j]$ :  $R_{in}$ ,  $G_{in}$ ,  $B_{in}$* , in the real time digital video input,  $I$ , image having the individual color in the real time digital video input image whose hue or saturation was selected to be independently changed, *by performing arithmetic and logical operations selected from the group consisting of addition, subtraction, multiplication, division, equal to, greater than, less than, absolute value of, and, combinations thereof, using input image pixel values,  $R_{in}$ ,  $G_{in}$ ,  $B_{in}$ , of each input image pixel,  $I[i,j]$ :  $R_{in}$ ,  $G_{in}$ ,  $B_{in}$* , of the real time digital video input image. ’435 Patent, 9:41-62.

Additionally, in the context of the “identifying” element, the end of column 9 describes the mathematical operation of multiplication and goes on to say that “[i]t is emphasized that this Step is for identifying only, and not for changing or affecting, input image pixels having the individual color in the real time digital video input image whose hue or saturation was selected to be independently changed.” ’435 Patent, 9:62-66 (emphasis added). The specification discloses that

performing logical and arithmetic operations modifies identifying and also informs an ordinary artisan what is required to perform arithmetic and logical operations to identify input image pixels. “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Markman*, 52 F.3d at 979.

Stevenson’s declaration appears to overlook a clear disclosure in the specification, which makes it clear which clause is modified by the term “by performing arithmetic and logical operations.” **Exhibit 3**, Stevenson Dec. “[E]xpert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert’s conclusory, unsupported assertions as to a term’s definition are entirely unhelpful to a court. *Perdiem*, 2016 WL 3633627, at \*3. The Court should reject Defendants’ indefiniteness argument.

**J. “EVALUATING” AND “EVALUATED”**

<b>Term to be Construed</b>	<b>Lone Star’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
“Evaluating” and “Evaluated” '435 Patent, Claims [1, 3, 4, 17, 19, and 20]	Not indefinite. Plain and ordinary meaning.	Indefinite.

Defendants allege the '435 Patent is unclear as to the scope of the evaluation and this term is therefore indefinite. Ex. 4 at 66:25-67:6. Defendants cannot prove clearly and convincingly that the term is indefinite because the term plainly refers to the use of color control functions for forming a corresponding plurality of output image pixels. A claim is indefinite only if the claim, “read in light of the specification delineating the patent, and the prosecution history, fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus*, 572 U.S. at 901. This is consistent with the specification, which explains:



In case 1 of scenario (A), where the independent red hue control delta value,  $H_r$ , of Step (b), is not equal to zero, there is determining corresponding output image pixel values,  $R_{out}$ ,  $G_{out}$ ,  $B_{out}$ , for each of the plurality of input image pixels,  $I[i,j: R_{in}, G_{in}, B_{in}]$ , identified as having red as the individual color in the real time digital video input image whose hue was selected to be independently changed, by separately *evaluating independent red hue control functions*  $F_h(\text{red-hue})$ , using the input image pixel values,  $R_{in}$ ,  $G_{in}$ ,  $B_{in}$ , of the plurality of input image pixels,  $I[i,j: R_{in}, G_{in}, B_{in}]$ , identified as having red as the individual color in the real time digital video input image whose hue was selected to be independently changed, for forming a set of output image pixels,  $O[s,t: R_{out}, G_{out}, B_{out}]$ , having red as the individual color whose hue was selected to be independently changed.

‘435 Patent, 13:39-53 (emphasis added). Here, the term is used to describe how this particular embodiment evaluates the red hue color control functions. The term is used consistently throughout the specification to describe additional means of evaluating color control functions. See, e.g., ‘435 Patent, abstract, 11:41-55, 12:58-13:22, 16:11-47, 20:5-38, 23:11-45, 25:16-55 (describing evaluating color controls in the context of specific formula and algorithm embodiments). The ‘435 specification describes an example of such an embodiment: “First, in scenario (A), for independently controlling hue only of an individual color, there is described a first generalized algorithm, featuring *evaluating independent color hue control functions*,  $F_h(\text{color-hue})$ , applicable to the three particular cases corresponding to permutations” ‘435 Patent, Col. 12, Lns. 58 - 61. The specification proceeds to define an embodiment of the independent color hue control functions, which are evaluated using input image pixel values and the selected control delta values, for example:

$$\begin{aligned} F_1(\text{color-hue}) &= [(1-H_{clr}) * V_{clr1}_{in} + (H_{clr} * V_{clr2}_{in})], \\ F_2(\text{color-hue}) &= [(1-H_{clr}) * V_{clr2}_{in} + (H_{clr} * V_{clr1}_{in})], \\ F_3(\text{color-hue}) &= V_{clr3}_{in}; \end{aligned}$$

Col. 13, Lns. 8 – 10.

The description in the specification is consistent with the claim language that provides:

“(d) determining corresponding output image pixel values for each of said plurality of said input image pixels identified as having said selected individual color in the real time digital

video input image with the hue or the saturation selected to be independently changed, ***by separately evaluating independent color hue control functions or independent color saturation control functions, respectively, using said input image pixel values of said plurality of said input image pixels, and using corresponding said selected independent color hue control delta value or said corresponding selected independent color saturation control delta value***, for forming a corresponding plurality of output image pixels having said selected individual color with the hue or the saturation selected to be independently changed.” ‘435 Patent, Claim 1(d).

The plain language of the claim and specification provide proper guidance for the term “evaluating” and it is therefore not indefinite. “[T]he person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Phillips*, 415 F.3d at 1313.

Defendants’ expert opines that “[a]s an example of how unhelpful the specification is regarding this term, the term, as it is used in the claims, is repeated in the specification using the same exact language as in the claims, with no further explanation.” Stevenson Decl. at 38. Defendants’ extrinsic evidence does not rise to the level of clear and convincing standard, nor is “unhelpful” the standard for indefiniteness. The definiteness requirement of 35 U.S.C. § 112 “mandates clarity, while recognizing that absolute precision is unattainable.” *Nautilus*, 572 U.S. at 910. “The Supreme Court recognized that ‘some modicum of uncertainty’” is expected and that “all that is required is that the patent apprise [persons of ordinary skill] of the scope of the invention.” *Freeny v. Apple Inc.*, No. 2:13-cv-00361-WCB, 2014 WL 4294505, at \*5 (E.D. Tex. Aug. 28, 2014) (quoting *Nautilus*, 572 U.S. at 910).

Assuming the specification fails to explain evaluating (it does not), Defendants’ indefinite argument still fails because definiteness of a term does not require that the specification explicitly use or define a particular term or phrase. Courts in this district have repeatedly found that neither is necessary for a claim to be definite. *See, e.g., Chrimar Sys., Inc. v. Alcatel-Lucent USA, Inc.*,

No. 6:15-CV-163-JDL, 2016 WL 1237156, at \*4 (E.D. Tex. Mar. 28, 2016) (finding that “‘detection protocol’ can be understood by a person of ordinary skill in the art with reasonable certainty in view” of the intrinsic evidence, even though the specification “does not use the terms ‘detection protocol’ or ‘protocol.’”); *Personalized Media Commc’ns, LLC v. Apple, Inc.*, No. 2:15-CV-01206-JRG-RSP, 2016 WL 6299860, at \*16-18 (E.D. Tex. Oct. 26, 2016) (similar as to term “varying timing lengths”); *DataQuill Ltd. v. Huawei Techs. Co.*, No. 2:13-CV-633-JRG-RSP, 2015 WL 363994, at \*16 (E.D. Tex. Jan. 27, 2015) (similar as to phrase “building up a code”). In light of the plain language of the term, the surrounding claim language, and the disclosures in the specification, the ordinary artisan would have at least reasonable certainty as to the meaning of this term. *See O2 Micro Intern. Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”).

Further, “evaluating” or “evaluated” is also objectively defined by its function: “evaluating independent color hue control functions, or independent color saturation control functions.” Function can “promote[ ] definiteness because it helps bound the scope of the claims by specifying the operations that the [claimed invention] must undertake.” *Cox Commc’ns, Inc. v. Sprint Commc’n Co.*, 838 F.3d 1224, 1232 (Fed. Cir. 2016). An ordinary artisan would understand what evaluating control functions is. This is an objective boundary well-defined by the method and system’s capabilities and further defines the claim scope. *Evicam Int’l, Inc. v. Enforcement Video, LLC*, No. 4:16-cv-105, 2016 WL 6470967, at \*18-19 (E.D. Tex. 2016) (finding “the term ‘large’ is sufficiently clear from the context of the claims as referring to storage capacity that is at least large enough to be useful for storing surveillance video”). The term “evaluating” or “evaluated” is not indefinite and should be given its plain and ordinary meaning.

## V. CONCLUSION

For the reasons set forth above, Lone Star respectfully requests that its proposed claim constructions be adopted, and for such other and further relief to which it may show itself entitled.

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Respectfully submitted,

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**CERTIFICATE OF SERVICE**

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